

storing in the second region a second program for execution by the photographing apparatus; and
creating a third region in the recording medium, the third region being temporarily used as a task region during execution of the program by the photographing apparatus.

REMARKS

At the outset, Applicant gratefully notes the Examiner's indication on page 8 of the Office Action that claims 11 and 12 contain allowable subject matter. Applicant respectfully submits, however, that all pending claims are allowable. The allowability of the pending claims becomes apparent in the following detailed analysis of the pending claims.

Prior to the present response, claims 1-14 were pending. Claim 15 has been added. Accordingly, claims 1-15 are currently pending. Favorable reconsideration is respectfully requested.

On page 2 of the Office Action, the Examiner objected to the drawings for containing informalities as noted on the PTO-948 form. The Examiner also required correction of the informalities in reply to the Office Action. In response, Applicant submits herewith a Submission of Substitute Formal Drawings including 12 sheets of drawings. It is respectfully submitted that the changes made to the drawings (i.e., to Figs. 5, 7-9, 11 and 13) address all the informalities noted on the PTO-948 form. Applicant therefore requests that the objection be withdrawn.

The Ueno Patent Fails to Disclose All Claimed Features

The Office Action includes a rejection of claims 1, 3, 4, 6 and 8-10 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,479,206 to *Ueno et al.* (hereinafter, "*Ueno*"). This rejection is respectfully traversed.

It is respectfully submitted that the *Ueno* patent fails to disclose a number of features set forth in the pending claims. For instance, claim 1 recites a processing system that

includes, *inter alia*, a photographing apparatus and an image processing apparatus to which the photographing apparatus and a recording medium can be connected. The photographing apparatus comprises a controller for executing a program stored in the recording medium. In other words, the controller of the photographing apparatus is capable of running a program stored in a recording medium that is connectable to the processing apparatus in response to a command or instruction. For instance, as disclosed in an exemplary embodiment described in pages 22-23 of Applicant's specification, if a request is made by the camera for execution of an application program stored in a memory connected with an image processing apparatus (here, a request is made to the PC 1000), data pertaining to the program is transferred to a work memory of the digital camera. As a result of this data transfer, a controller of the photographic apparatus can execute a specific operation on the photographic apparatus side, while referring to various data including the programs recorded in the image processing apparatus.

By contrast, the camera 10 described in the *Ueno* patent merely receives commands from a process that is executed by the computer. In this regard, the *Ueno* patent is describing a master-slave type relationship between the host computer 30 and the camera 10. For instance, *Ueno* discloses the following with respect to data transfer between the camera 10 and the host computer 30:

Transmissions from the host computer 30 to the electronic camera 10 are of two types, namely transmission of set-up data and transmission of controlled-variable transmission commands.

(*Ueno*, column 23, lines 16-19.) The *Ueno* patent shows these processes in Figure 4, steps 81 and 82, and in further detail in Figures 7 and 9. It is clear that the "data" transmitted from the host computer 30 involves "selecting" and "adjusting" parameters for the camera 10. (See column 15, lines 7-12.) In essence, each of these transmitted data constitute commands because they cause the camera to respond in a predetermined way. In addition, the *Ueno* patent discloses that the host computer 31 may send a "shot" or a "get" command to the camera 10, as respectively shown by steps 83 to 87 and steps 88 to 90 in Figure 4. Hence, the camera 10 described in the *Ueno* patent only appears to receive commands from

the host computer 30. (See Figure 4, steps 81, 83 and 88.) In response to these commands, the camera 10 performs processes within the camera that, at best, appear to be pre-programmed in some way within the camera itself. The *Ueno* patent does not disclose, either expressly or inherently, that a “program” is stored in a recording medium for execution by a controller of a photographing apparatus, as claimed.

The Examiner alleges that the *Ueno* patent discloses a controller 18 for executing a program stored in a recording medium of the main memory 32 of a computer 30, and that “the CPU transfers data to the memory about information pertaining to camera control parameters, therefore, causing a program to be stored in memory” (see the Office Action page 2, lines 17-18, and line 23 to page 3, line 1). It is respectfully submitted that the data transmitted from the host computer to the camera cannot reasonably be considered to be within the meaning of a “program” as claimed. These are commands created by the CPU 31 of the computer while the CPU 31 is executing a program.¹ (See the *Ueno* patent, column 11, 53-55.) Furthermore, the portions of the *Ueno* patent relied upon in the Office Action (i.e., column 11, lines 49-58 and column 13, lines 10-30) do not disclose that a photographing apparatus comprises a controller for executing a program stored in the recording medium as claimed. As pointed out above, the *Ueno* patent discloses that the host computer 30 transmits set-up data and controlled-variable transmission commands to the camera 10. For at least these reasons, the *Ueno* patent fails to disclose the combination of features recited in claim 1.

It is respectfully submitted that the *Ueno* patent also fails to disclose a combination that includes, *inter alia*, a processor for creating a region accessible from the photographing apparatus, and a controller for causing the program to be stored in the region, as recited in claim 1. In the context in which “a region accessible ...” is claimed, the photographing apparatus is capable of gaining entry to the region in which the program is stored in order

¹ While the *Ueno* patent does not explicitly mention that the steps being carried out by the host computer 30 are part of any program, it would be reasonable to assume that the processes illustrated in the flowcharts of Figures 3 to 5, and the various graphical displays, menus, etc. of the computer display 40 shown in Figures 8 and 10-24, pertain to an application program which is executed by the host computer 30.

to read data from the region. In contrast, the *Ueno* patent does not mention any region in which a program is stored by a controller of a processing apparatus that could be reasonably be considered accessible from the photographing apparatus. To the contrary, in the system described in the *Ueno* patent, control of where data is stored or read from (i.e., the main memory 32 or the optical disk unit 38) is determined from the computer side. (See the *Ueno* patent, column 14, lines 57-62; column 19, lines 56-67; column 20, lines 36-40; and column 22, lines 1-15.) The *Ueno* patent does not, in fact, disclose that the camera 10 can access a region created by an image processing apparatus.

Applicant disputes any allegation that the *Ueno* patent discloses that “the region accessible to the camera is the region of the memory (32) that transfers information to and from the camera” (See the Office Action, page 2, the last line to page 3, line 2.) First of all, the memory 32 of the *Ueno* patent does not transfer information because this task is carried out by the host computer’s processor (i.e., CPU 31). (See the *Ueno* patent, column 13, lines 11-20.) Second, claim 1 does not recite “a region accessible to the camera,” as alleged by the Examiner. Rather, claim 1 recites “a region accessible from the photographing apparatus.” It is respectfully submitted that the *Ueno* patent fails to disclose these claimed features.

With respect to anticipation, M.P.E.P. § 2131 instructs: “To anticipate a claim, the reference must teach every element of the claim. ‘A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).” As pointed out above, the combination of features recited in claim 1 define an image processing system having significant differences from the system disclosed in the *Ueno* patent. Hence, a *prima facie* case of anticipation has not been established. As such, the rejection is improper and should be withdrawn.

Each of claims 6 and 10 similarly recite novel and inventive subject matter and are therefore patentably distinguished from the *Ueno* patent at least for the reasons given above for claim 1.

For example, claim 6 recites a photographing apparatus that includes, *inter alia*, “an interface for reading a program for processing the image data recorded in said memory out of an external recording medium” and “a controller for executing the program read out from the external recording medium.” Claim 10 is directed to an image processing system that includes, *inter alia*, a photographing apparatus comprising “a controller for executing a program recorded in the recording medium connected to said image processing apparatus.” As pointed out above, the *Ueno* patent does not disclose a “controller for executing a program ...” with any reasonable interpretation of this claimed subject matter. To the contrary, the *Ueno* patent describes that the CPU 31 of the host computer 30 executes processes by which commands are created and transmitted to the camera 10. (See the *Ueno* patent, column 13, lines 11-15.) Moreover, the *Ueno* patent does not disclose that the camera 10 is capable of reading a program out from an external recording medium, as recited in claim 6, or the claimed “task region” recited in claim 10. For instance, the undersigned has carefully read column 13, lines 10-30 of the *Ueno* patent, and cannot find support for disclosure of a “task region being temporarily used to execute the program ...,” as alleged in the Office Action. (See the Office Action, page 4, lines 12-13.)

For at least these reasons, the *Ueno* patent fails to disclose the combinations of features recited in claims 6 and 10. As such, claims 6 and 10 are not anticipated by this reference. Accordingly, the rejection is in error and should be withdrawn.

Applicant will not belabor discussion of each and every one of rejected dependent claims 3, 4, 8 and 9. Applicant notes, however, that further distinctions exist therein. For instance, claim 4 recites that “if the photographing apparatus is reconnected to the image processing apparatus after disconnection, a reconnecting process is performed using data stored in a buffer memory of an interface in the photographing apparatus.” Applicants have reviewed column 18 lines 38-53 of the *Ueno* patent relied upon in the Office Action for meeting the recitations of claim 4 and respectfully submit that its disclosure does not meet these recitations of claim 4. This is but one example of several regarding the recitations of the dependent claims being separately patentable from the applied art.

The Section 103 Rejections Fail to Establish a *Prima Facie* Case of Obviousness

On page 4 of the Office Action, claims 2, 13 and 14 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the *Ueno* patent. This rejection is respectfully traversed.

In essence, the statement of rejection alleges that the *Ueno* patent explicitly discloses all of the features recited in the claims, with the exception of creating a second region for storing a second program in the recording medium, and creating a third region in the recording medium, the third region being temporarily used as a task region during the execution of the first program. In connection with these items missing in *Ueno*, the Examiner takes "Official Notice" that it was well known in the art "to format a memory in a computer so that it is divided into several regions for storing a plurality of programs," and "to enable a recording medium to have a region such as a data stack that enables programs to use the memory region temporarily during the execution of a program." (See the Office Action, page 5, line 21 to page 6, line 3 and lines 8-13.)

It is respectfully submitted, however, that the differences between the present invention and the *Ueno* patent are more fundamental than the issue of whether a computer memory is formatted into several regions for storing a plurality of programs. Rather, the *Ueno* patent is directed to an entirely different objective from the present invention, as a result of which it does not suggest any solution to the problem addressed by the present invention.

More particularly, the *Ueno* patent is concerned with solving problems relating to the relatively long period of time that it takes for an image to be transmitted from a camera to a computer and with an inconvenience that arises when an operator of a computer system has to go to the location of a camera to make adjustments of camera's control parameters.

To alleviate the long image transfer time, the *Ueno* patent teaches an approach in which a preview command is sent to the camera from the host computer to view a reduced data image. Upon receiving the request, the camera processes the corresponding image stored in the camera memory so that the data of the image is substantially reduced before it is transmitted to the host computer. After the host computer receives the reduced image

data, a user can view the reduced data image and select a desired area of it, if desired, and then issue a "get" command to retrieve either the complete data of the entire image or the complete data pertaining only to a selected area of a reduced image. According to the *Ueno* patent, this will reduce the number of undesired images transmitted and/or the amount of image data transmitted so that the image data transmission time can be shortened. (See the *Ueno* patent, column 20, line 45 to column 21, line 67.) For instance, as illustrated in Figure 4, the camera is controlled to shoot a picture (step 83). Next, (in step 84) the camera performs the necessary processing of the captured image. When a preview command is received (step 85), the image data is "thinned out" (step 86). The thinned out image data is then transferred to the host computer (step 87). The transferred reduced data image is displayed on display 40 allowing the user to select, reject, reduce, enlarge, crop etc. the image. After the user decides what form of the image is desired, he or she causes the host computer to transmit a "get" command to the camera (see Figure 4, step 88). The camera responds by transmitting to the host computer the image data designated by the user.

To deal with inconveniences related to a controller having to travel to a camera location to adjust the camera's parameters, the *Ueno* patent discloses a way to set a number of camera control variables and to operate the camera from the host computer side of the system.

In contrast, the present invention is concerned with the fact that image data processing in conventional image processing systems is mainly carried out by software on a computer. This leads to a system where the operations of the camera and computer are independent from each other. While cameras having the capability to process photographed image data have been proposed, such cameras would need a large of capacity memory to carry out the photographic processes. Consequently, these cameras would be expensive, large, and consume a excessive power. (See Applicant's specification, pages 1-2.) The present invention addresses these problems by providing a product and a technique which facilitate the use of a photographic apparatus to execute a process generally requiring a large memory capacity, but without providing an extra memory to the photographic

apparatus. Hence, the present invention utilizes the resources of the computer, such as connected recording media, to allow a photographic apparatus to execute a program.

It is respectfully submitted that the *Ueno* patent does not address this problem, and more importantly, does not disclose the features of the present invention recited in claims 13 and 14. As noted above, processing of image data in the system described in the *Ueno* patent is accomplished by way of the CPU 31 of computer 30, which executes a program that appears to reside on a recording medium 32 connected to the computer 30. The *Ueno* patent discloses that photographic processes are performed by the camera, but there is no mention in *Ueno* that these processes are to be executed by the camera by way of a program stored on a recording medium as claimed. Hence, Applicant disagrees with the Examiner's allegations that the *Ueno* patent teaches a camera 10 "comprising a controller (18) for executing a program recorded in the recording medium (32) connected to the image processing apparatus (30)." (See the Office Action, page 5, lines 17-18; and page 6, lines 5-6.) There is simply no such teaching in the *Ueno* patent.

Furthermore, the Examiner's allegations regarding well known subject matter are too general, and thus they are not relevant to the specific combination of features set forth in claims 13 and 14. For instance, claim 13 is directed to a method of formatting a recording medium that includes, *inter alia*, a step of creating a first region for storing a first program in the recording medium, wherein the first program is to be executed by a photographing apparatus. Claim 14 is directed to a program product on a storage executable on a computer, wherein the program product creates, *inter alia*, a first region for storing a first program to be created in a recording medium provided in the computer, the first program being executed by a photographing apparatus. It is respectfully submitted that neither the *Ueno* patent nor the allegations of what was well known in the art teach or suggest these features.

Even considering, *arguendo*, that one of ordinary skill in the art would have been motivated to combine the teachings of the *Ueno* patent and the allegations of well known subject matter, this hypothetical combination would not have suggested storing a first program to be executed by a photographing apparatus in a first region of a recording

medium. At best, the suggested combination would appear to suggest storing a program in the memory 32 of the computer 30 to be executed by the computer 30 of the *Ueno* patent. For at least these reasons, the rejection does not teach every feature recited in claims 13 and 14. Hence, the Office has failed to establish a *prima facie* case of obviousness. Therefore, the rejection is improper and should be withdrawn.

As noted above, the applied teachings of the *Ueno* patent, and what was allegedly well known in the prior art, do not teach or suggest the claimed invention. Moreover, Applicant submits that any modifications of the system taught in the *Ueno* patent that would have been necessary to meet the limitations of claims 13 and 14 would change its basic mode of operation. This is clear from explicit disclosure in the *Ueno* patent², which teaches that the computer controls the electronic camera, and from the problems noted above that the *Ueno* patent intends to solve. It is respectfully submitted that these explicit teachings in the *Ueno* patent are further evidence the nonobviousness of the claimed program stored on a recording medium and executed by a photographic apparatus. In fact, MPEP § 2143.01 instructs that it is not sufficient to render claims *prima facie* obvious when a proposed modification of a reference changes the principle operation of that reference. Furthermore, it is not believed that the "Official Notice" taken by the Examiner of alleged facts unquestionably accepted in the art³ would have suggested the subject matter set forth in claims 13 and 14.

It is respectfully submitted that the combinations recited in claims 13 and 14 define subject matter that is contrary to what the applied references would have suggested to one of ordinary skill in the art. That is, whereas the computer-camera of the *Ueno* patent

² See, for example, the *Ueno* patent, column 1, lines 8-12; column 3, lines 57-62; column 3, line 13, lines 48-49; column 4, lines 9-11 and lines 28-32; and column 13, lines 16-20. These are but a few of many references to control by the camera being carried out by a program stored and executed by the computer 30.

³ Official Notice is intended for facts which are common knowledge or capable of unquestionable demonstration. See *In re Knapp-Monarch Co.*, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961). See also *In re Cofer*, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA Appeal No. 1997-0915 Application 08/369,853 1966).

assume a master-slave relationship, respectively, the photographing apparatus of the present invention is capable of utilizing the memory resources external to the photographing apparatus for storing and executing a program. This is quite different from a computer executing a program on a main memory, as suggested in the *Ueno* patent.

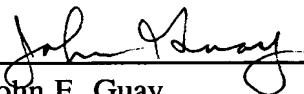
Additional features of the invention are recited in dependent claim 2, which is likewise not disclosed by the reference for at least the above reasons. In view of the foregoing, however, a detailed discussion of those additional distinctions are believed to be unnecessary at this time.

The Office Action also includes rejection of claim 5 as allegedly being obvious over the *Ueno* patent in view of U.S. Patent No. 6,070,208 to *Brief*, and a rejection of claim 7 as allegedly being obvious over the *Ueno* patent in view of U.S. Patent No. 5,809,520 to *Edwards et al.* It is respectfully submitted that the neither the apparatus and method of controlling a USB endpoint pipe taught in the *Brief* patent nor the interchangeable storage cartridges and the systems thereof taught in the *Edwards et al.* patent remedy the deficiencies noted above. Hence, dependent claims 5 and 7 are believed allowable at least of the reasons given above for their respective parent claims 1 and 6, and further for the combinations of additional features recited.

Reconsideration and withdrawal of the rejection, and allowance of all pending claims are respectfully requested.

Respectfully submitted,

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Date: June 12, 2003